

## Claims

- 1.- A process for producing pitches from coal tars and distillates thereof, **characterized in**  
5 **that** the process is carried out in three steps under mild conditions of pressure and temperature, said steps being: oxidative thermal treatment using as reagent air, oxygen, low-oxygen air, or mixtures thereof; thermal treatment under inert atmosphere, and fractional distillation.
- 10 2.- The process of claim 1, **characterized in that** the oxidative thermal treatment step is carried out at a temperature of less than 400° C, a pressure of less than 10 bar g and a residence time in the range of 2-10 seconds, and preferably 350-400° C, 5-10 bar g and 6-10 seconds, using as reagent air, oxygen, low-oxygen air, or mixtures thereof.
- 15 3.- The process of claims 1 and 2, **characterized in that** the thermal treatment step under inert atmosphere is carried out at 340-400° C, less than 10 bar g and a residence time in the range of 3-10 hours, and preferably, 370-400° C, atmospheric pressure and 4-6 hours, in order to stabilize the reaction product.
- 20 4.- The process of claims 1, 2 and 3, **characterized in that** the fractional distillation step is carried out preferably under vacuum or by stripping with steam or inert gas, in order to adjust the softening point of the pitch.
- 25 5.- The process of claims 1, 2, 3 and 4, **characterized in that** as a byproduct there is obtained anthracene oil which exhibits an increased concentration of anthracene/phenanthrene.
- 30 6.- Use of the pitches obtained by the process of claims 1 to 4 in the particular field of carbon precursors.
- 35 7.- Use of the pitches obtained by the process of claims 1 to 4, for the manufacture of electrodes destined to aluminium industry, graphite electrodes (as a binder pitch or impregnating pitch) and synthetic graphite in general, binders for refractory industry, waterproof materials and electrometallurgical paste.
- 8.- Use of the anthracene oil obtained as byproduct of the process of claim 5 for the manufacture of anthracene paste.